AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1.   (currently amended)   A simulation system for a mobile communication network comprising:

a simulated network including:

a plurality of <u>simulated</u> nodes each having a[[n]] <u>simulated</u> antenna associated therewith;

said nodes operating to communicate with one another by one of a <u>simulated</u> synchronous communication link and a <u>simulated</u> time division multiple access (TDMA) communication link;

a user specified data traffic model in communication with said simulated network for providing operational parameters, including a routing protocol for each said node, to simulate an operational environment for said simulated network; and

a network traffic analyzer for analyzing network traffic within said simulated network and generating an output in accordance therewith.

2.   (original)   The simulation system of claim 1, wherein said network analyzer further operates to sum all radio frequency (RF) interference arriving at each said node.

3.   (original)   The simulation system of claim 1, wherein said TDMA communication links comprise beam-hopping TDMA type links.

4.   (original)   The simulation system of claim 1, wherein said simulated network further comprises a TDMA link controller for providing initial operating parameters for the TDMA communications links.

5.   (original)   The simulation system of claim 1, wherein said simulated network further comprises a link censor for estimating a degree of interference likely to be caused by communications links to be formed in accordance with information provided by said data traffic model, said link censor blocking the formation of said synchronous communication links and said TDMA communication links likely to cause unacceptable interference to other said synchronous communication links and said TDMA communication links in said simulated network.

6.   (original)   The simulation system of claim 1, wherein said simulated network further comprises a synchronous link controller for providing initial operating parameters for the synchronous links at a start of a network simulation operation.

7.   (original)   The simulation system of claim 1, wherein said simulated network further comprises a node controller in communication with at least one of said nodes for setting a location, orientation and velocity vectors of each of said nodes, and the relative location and orientation of each said antenna on said nodes.

8.   (currently amended)   A method for simulating a mobile communication network, said method comprising the steps of :

a) providing a simulated network having a plurality of simulated nodes, wherein each said node includes a[[n]] simulated antenna associated therewith;

b) forming a plurality of simulated time division multiple access (TDMA) communication links between selected pairs of said nodes, each of said TDMA communication links having a plurality of time slots;

c) forming a plurality of simulated synchronous communication links between selected pairs of said nodes;

d) using a user specified data traffic model to apply desired operating parameters to said simulated network; and

e) using a network traffic analyzer to analyze network traffic within said simulated network and generate an output in accordance therewith.

9.   (original)   The method of claim 8, further comprising the step of using a synchronous link controller for providing initial operating parameters for the synchronous communication links at a start of a network simulation operation.

10.   (original)   The method of claim 8, further comprising the step of using a TDMA link controller for providing initial operating parameters for the TDMA communications links.

11.   (new) The simulation system of claim 1, wherein said simulated antenna is a simulated directional antenna.

12.   (new) The simulation system of claim 11, wherein said simulated directional antenna is a simulated phased array antenna.